Call for Papers: ‘Adaptive methods and signal processing for marine systems’

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Call for Papers: 'Adaptive methods and signal processing for marine systems'

Adaptive methods and signal processing increasingly finds its way into advanced systems with the aim of securing safe operations in harsh marine environments both on the surface and underwater. The need for enhanced monitoring, supervision and timely diagnosis of potential risks has been evidenced by unfortunate accidents during oil exploration ventures and during voyages at sea – events that give concern as regards to safety, economy and the environment. The needs for cost reducing and safety enhancing automation and monitoring are ever increasing.

Adaptive methods provide the means of coping with varying and uncertain conditions. fault detection and isolation and fault-tolerant control offer the ability to automatically detect, isolate and accommodate faults in systems, while maintaining overall system stability and acceptable performance. Advanced signal processing supports the assessment of operational and environmental conditions and provides the basis for reliable decision support. The aim is to maintain safety, reliability and performance of automated systems and of operation at large.

The goal of this special issue is to provide a state-of-the-art picture of the development of advanced methods within adaptive control and signal processing as it applies to marine vehicles and systems. Papers focusing on new methods and applications are welcomed, including, but not limited to, the following topics:

- Adaptive methods applied to marine systems;
- Maneuvering, path following, and formation and motion control;
- Efficient propulsion, power generation and auxiliary systems control;
- Signal processing related to decision support and environment estimation;
- Autonomous operation at the surface or underwater; and
- Fault diagnosis and fault-tolerant control and applications in the marine environment.

Papers are invited that focus on transitioning from theoretical to practical studies with emphasis on methodologies for the design, synthesis and application. Papers written or co-authored by researchers from industry are encouraged, as well as papers involving either real data or detailed and realistic simulations. Both novel research and tutorial papers will be considered. All submissions will be reviewed following the standard procedures of the journal, and acceptance will be limited to papers requiring only moderate revision.

Submission details

Prospective authors are requested to submit their manuscript online by 15 May 2014 to http://mc.manuscriptcentral.com/acsp-wiley (follow the instructions under 'Author Centre' and select manuscript type '**Adaptive Control and Signal Processing in Marine Systems**', when submitting). It would be helpful if you could inform the guest editors in advance of your intention to submit a paper.

For further information, please contact:

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